Harvard dean gives McMaster an "A"

Alison Quaggin

All Canadian medical schools — except the one at McMaster University in Hamilton — must make some dramatic changes if they're to successfully prepare physicians for practice in a world of bewildering scientific, technologic and social change, says the dean of Harvard University's Faculty of Medicine.

At a recent student-organized, day-long symposium called McMaster University Medical School: Past, Present, and Future, Dr. Daniel Tosteson praised the school for playing "such an important role in the rethinking of medical education in the late 20th century".

Since the school opened in 1969, it has stressed problem solving, student-directed learning and evaluation, and early development of clinical skills.

In 1985 Harvard introduced a special program with some similar elements; students are exposed to clinical work throughout the program, with the emphasis on problem-oriented, tutorial-based learning.

Traditional medical education, on the other hand, has paid little attention to skills, and has been "almost totally preoccupied" with teaching students as much scientific knowledge as possible.

And that, says Tosteson, is a hopeless task, since "the pace of growth of this knowledge is so incredibly fast that there is . . . no hope that any one individual can encompass it all".

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Educators have to be more selective about the information they do teach, and make teaching of the principles of medicine a priority, Tosteson told the 300 or so McMaster faculty members and students who attended the symposium.

Lifelong learning skills — a goal of the McMaster program — will be even more important in the future. Tosteson pointed out that physicians face tough new roles, which must be reconciled with the traditional doctor/patient relationship. For example, with the "industry of medicine" that is growing around technologic developments, the physician often must serve "as a consultant to the patient as to how he or she can be a prudent buyer of the many services available".

And worrisome ethical problems are emerging due to changes in society and in health care delivery. For instance, Tosteson says that as more physicians become salaried employees of health maintenance organizations and similar systems, they have to solve frequent conflicts "between the hippocratic commitment of doctor to patient" and loyalty to the organization.

He believes these developments in medicine and society will eventually bring change to medical education. There's already "broad agreement" about desirable directions for change, as set out in the 2-year-old Association of American Medical Colleges' report, *Physicians for the Twenty-first Century* (see *CMAJ* 1987; 136: 523–525).

The panel that prepared that report — it included Dr. Victor Neufeld, associate dean of education at McMaster's medical school — advised schools to emphasize the acquisition of skills, values and attitudes as much as knowledge, to shape education to fit changing demographics and to stress health promotion and disease prevention.

But while he sees changes coming, Tosteson warned they'll come slowly: most schools aren't altering their programs, and "I wouldn't hold my breath" waiting for them to.

"Deciding how to transmit . . . knowledge, skills and attitudes that all doctors share is an enormously difficult, ill-structured problem", says Tosteson. "In most medical schools, not very many people are working on [the problem] very seriously."

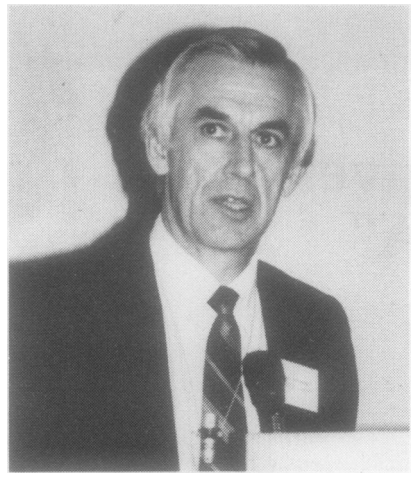
The executive director of the College of Family Physicians of Canada, which has a strong interest in the general education of physicians, shares Tosteson's views. Dr. Reg Perkin told *CMAJ* there will likely be more medical schools like McMaster's, but not

for another 20 to 25 years.

The fact that only about 5% to 10% of faculty activity at North American medical schools is directed at general medical education also hinders change, says Tosteson. The rest is devoted to research, clinical practice and specialty education. Responsibility for general education is usually parcelled out to individual departments, which aren't well-suited to the task.

"As each one of the disciplines has grown, most specialists talk only to other specialists and do not have the overview necessary to build and maintain a coherent and integrated program of general medical education", Tosteson observed. He thinks new interdepartmental faculty structures must be developed to take the responsibility for general medical education.

While Tosteson gave the McMaster program a vote of confidence, a former McMaster pediatrician wondered if there is solid



Neufeld: There is more emphasis on community care and appraisal skills.

evidence that McMaster produces physicians who are better prepared to learn and solve problems throughout a lifetime of practice. Dr. Barry Zimmerman, now an associate professor of pediatrics at the University of Toronto, was supportive of the McMaster program, but added: "What I think this medical school has to do, using epidemiologic techniques, is actually *prove*" that it produces self-learners.

Neufeld admitted that in several graduating classes that were followed until the early 1980s, "some of the distinctive things" McMaster had tried to instil — such as independent learning and a broader view of the health care system — weren't evident during residency training and practice. But program changes were made in 1983, he said, and with the rearranged curriculum there's now more emphasis on community health care and the teaching of critical appraisal skills.

Dr. Bernard Shragge, chairman of the undergraduate medical program at McMaster, concluded that this ability to change must continue to be the program's mandate. McMaster students and faculty will hold further meetings to explore issues raised at the symposium.■